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Construction of cohesion model of college English teaching under Cloud Computing environment

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Abstract: In order to improve the cohesion and quality of college English teaching, a model of college English teaching cohesion under the interactive network environment of cloud computing database server is constructed. In this paper, we propose an interactive network platform for college English teaching based on cloud computing multimedia fusion database server. In the interactive network environment of cloud computing database server, the big data analysis model of college English teaching fusion multimedia information is constructed, and combined with the big data mining method, the multimedia information fusion and feature clustering processing of college English teaching fusion are carried out in the interactive network environment of cloud computing database server. Using the heterogeneous directed graph fusion clustering method, this paper designs the optimal storage structure of college English teaching integration multimedia information under the cloud computing database server interactive network environment, and extracts the semantic ontology features of college English teaching integration multimedia information under the cloud computing database server interactive network environment. Through feature optimization retrieval, the design of college English teaching fusion platform and multimedia information fusion under the interactive network environment of cloud computing database server are realized. Through the multimedia information fusion method of college English teaching fusion under the interactive network environment of cloud computing database server, differential scheduling is carried out to improve the ability of college English teaching integration and multimedia information fusion under the interactive network environment of cloud computing database server. The simulation results show that the designed college English teaching interface platform has a high degree of information fusion and a strong ability of resource allocation under the interactive network environment of cloud computing database server.

Keywords: database server interaction; Network environment; College English; Teaching cohesion; Heterogeneous Directed Graph Fusion Clustering

1. Introduction

With the continuous promotion and development of information management and network multimedia English teaching construction, the level of college English teaching convergence under the interactive network environment of cloud computing database server is constantly improving. In order to improve the management and service level of web-based multimedia English teaching, it is necessary to build the cohesion of college English teaching under the interactive network environment of cloud computing database server [1-3]. This paper constructs the big data fusion and resource scheduling model of the college English teaching integration platform under the cloud computing database server interactive network environment, which improves the college English teaching integration and information management ability under the cloud computing database server interactive network environment. The research on the design method of college English teaching integration platform in the interactive network environment of

cloud computing database server has attracted great attention [4-6].

This paper studies the multimedia information fusion scheduling model of college English teaching integration under the interactive network environment of cloud computing database server, and integrates medical information by designing the college English teaching integration multimedia platform under the interactive network environment of cloud computing database server. In the traditional methods, the multimedia design and fusion methods of college English teaching fusion in the interactive network environment of cloud computing database server mainly include grid scheduling method, fuzzy information fusion method, etc. A feature extraction and big data analysis model for college English teaching fusion multimedia information in the interactive network environment of cloud computing database server has been established [7]. Combined with the semantic ontology feature analysis method, the integrated scheduling of college English teaching fusion multimedia information in the interactive network environment of cloud computing database server has been realized [8-9]. However, the design method of college English teaching integration platform and resource integration under the traditional database server interactive network environment has high computational complexity and poor information integration. In order to solve the above problems, this paper proposes a multimedia fusion based cloud computing database server interactive network environment college English teaching connection platform. This paper constructs a big data analysis model of college English teaching multimedia information in the interactive network environment of cloud computing database server, and combines the big data mining method to conduct the multimedia information fusion and feature clustering processing of college English teaching in the interactive environment of cloud computing database server. The optimal storage structure of college English teaching multimedia information in the interactive network environment of cloud computing database server is designed by using heterogeneous directed graph fusion clustering. This paper extracts the semantic ontology features of college English teaching integration multimedia information under the cloud computing database server interactive network environment, and realizes the design of college English teaching integration platform and multimedia information integration under the cloud computing database server interactive network environment through feature optimization retrieval. Finally, through simulation test analysis, the reliability of the college English teaching interface platform designed in this paper under the cloud computing database server interactive network environment is verified.

2. College English teaching connects multimedia information, big data mining and information fusion.

2.1. College English teaching convergence multimedia information big data mining

In order to realize the convergence platform of college English teaching in the database-server interactive network environment based on multimedia convergence, the semantic ontology fusion scheduling model is adopted to construct the fusion set of multimedia information of college English teaching convergence in the database-server interactive network environment. The specific process is shown in Figure 1.

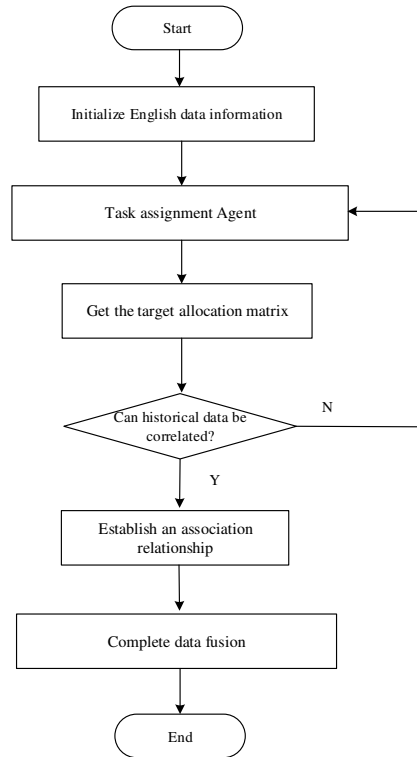


Fig. 1 Multimedia information fusion process of college English teaching convergence

Combined with the method of big data mining[10], the feature quantity of college English teaching convergence information in the database-server interactive network environment is obtained in the queue resource quota manager[11-12]. Extract the binary semantic feature distribution set of multimedia information of college English teaching in the database server interactive network environment, and design the storage structure of multimedia information of college English teaching in the database server interactive network environment by using the heterogeneous correlation feature detection method, as shown in Figure 2.

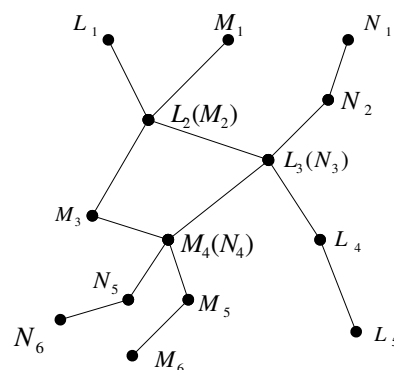


Fig. 2 Multimedia information storage structure of college English teaching convergence under the interactive network environment of database server

In the multimedia information storage structure of college English teaching convergence in the database server interactive network environment shown in Figure 2, the feature space recombination technology is combined to fuse the multimedia information structure of college English teaching convergence in the database server interactive network environment, and the

fuzzy parameter set of multimedia information of college English teaching convergence in the database server interactive network environment is extracted according to the difference of life cycle and data volume[13]. The obtain autocorrelation characteristic distribution coefficient is that multimedia information fusion and sensor information tracking identification of college English teach convergence in database server interactive network environment by statistical analysis method[14], and the correlation ontology characteristic quantity of college English teaching convergence multimedia in database server interactive network environment is as follows:

$$(\bar{s}, \bar{a}) = \varphi_2(((s_1, a_1), (\omega_1, a_1')), ((s_2, a_2), (\omega_2, a_2')), \dots, ((s_n, a_n), (\omega_n, a_n')))) = \Delta \left(\frac{\sum_{j=1}^n \Delta^{-1}(\omega_j, a_j') \Delta^{-1}(s_j, a_j)}{\sum_{j=1}^n \Delta^{-1}(\omega_j, a_j')} \right) = \Delta \left(\frac{\sum_{j=1}^n \beta_j \beta_j'}{\sum_{j=1}^n \beta_j} \right) \quad (1)$$

Determine the difference degree of homework types, combine resource fusion and feature optimization extraction methods, and carry out fuzzy scheduling and information mining of multimedia information in college English teaching under the interactive network environment of database server. Fuzzy matching refers to matching two similar nouns according to the similar features of the characters in the nouns to obtain the attribute data of the corresponding nouns in another table. Because of the different data sources, the names of the same object may be different, but there are still some similarities between the two names. Using the principle of word segmentation, this paper constructs an adaptive parameter fusion model of college English teaching convergence multimedia in the database server interactive network environment, and

obtains the gradient model $\nabla^2 F(x)$ [15], and establishes the fuzzy decision matrix of multimedia information fusion scheduling of college English teaching convergence in the database server interactive network environment:

$$X_1 = \begin{bmatrix} M & G & P & P \\ P & VP & M & P \\ G & M & G & EP \\ VG & P & P & G \\ EG & EP & VP & M \end{bmatrix}, X_2 = \begin{bmatrix} P & M & VP & VP \\ VP & EP & G & G \\ M & G & P & VP \\ EG & VP & VP & M \\ P & VP & M & VP \end{bmatrix}$$

$$X_3 = \begin{bmatrix} G & P & VP & VG \\ VP & G & P & G \\ VG & VP & G & P \\ G & VG & EG & VP \\ M & VP & M & EG \end{bmatrix}, \omega = \begin{pmatrix} \omega_1 \\ \omega_2 \\ \omega_3 \end{pmatrix} = \begin{bmatrix} M & G & VP & P \\ VP & VG & P & G \\ G & P & M & G \end{bmatrix} \quad (2)$$

This paper constructs a big data analysis model of college English teaching convergence multimedia information in the database server interactive network environment, combines the big data mining method, and makes differential scheduling by the method of multimedia information fusion of college English teaching convergence in the database server interactive network environment, so as to improve the ability of college English teaching convergence and multimedia information fusion in the database server interactive network environment.

2.2. Database server interactive network environment of college English teaching convergence and multimedia information integration

The multi-queue priority scheduling method is adopted to design the multimedia information

storage structure of college English teaching convergence in the database server interactive network environment, and the multimedia information scheduling and feature fusion model of college English teaching convergence in the database server interactive network environment is constructed. The specific process is shown in Figure 3.

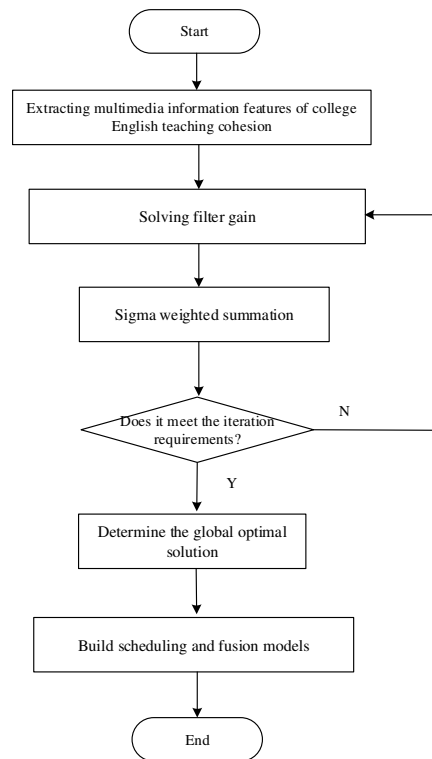


Fig. 3 Construction process of multimedia information scheduling and feature fusion model for college English teaching convergence

Get the output heterogeneous feature quantity of multimedia information of college English teaching convergence in the database server interactive network environment under the background of big data[16]. Assuming that the attribute set of multimedia information fusion scheduling of college English teaching convergence in the database server interactive network environment is, carry out multimedia information fusion of college English teaching convergence in the database server interactive network environment, and get the big data heterogeneous fusion model as shown in Figure 4.

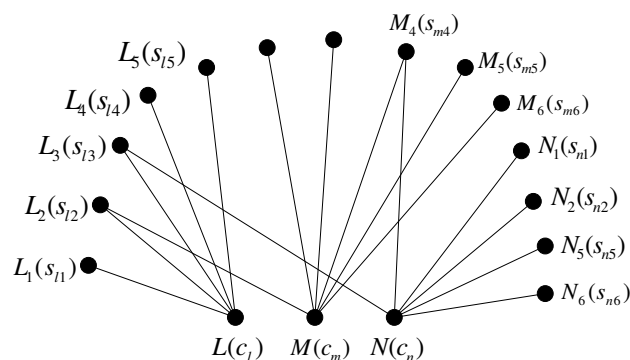


Fig. 4 Heterogeneous integration of multimedia information in college English teaching

under the interactive network environment of database server

The main goal of multimodal fusion is to reduce the heterogeneous differences among modalities,[17] keep the integrity of specific semantics of each modality, and achieve the best performance in deep learning models. It is divided into three types: joint architecture, cooperative architecture and codec architecture. The three fusion architectures are widely used in many fields, such as video classification, sentiment analysis, speech recognition, etc., and involve the fusion content of image, video, voice, text, etc. The key of multimodal joint architecture is to realize feature "joint", and the simplest method is direct connection, that is, "plus" joint method. In this method, the shared semantic subspace is realized in different hidden layers, and the semantics of the transformed monomodal feature vectors are combined together, thus realizing multimodal fusion. Collaborative architecture is based on cross-modal similarity method, which aims to learn a common subspace by directly measuring the distance between vectors and different modes. Cross-modal similarity method keeps the similarity structure between modes and within modes under the constraint of similarity measurement[18], expecting that the cross-modal similarity distance of the same semantic or related objects is as small as possible, and the distance between different semantics is as far as possible, which is conducive to cross-modal transfer learning. Its purpose is to transfer knowledge between different modes or fields. Codec architecture is an intermediate representation for mapping one modality to another. The decoder will be responsible for reasoning high-level semantics and generating syntax to ensure the correct understanding of semantics in the source modality and the generation of new samples in the target modality. According to the sharing level, the quantitative evaluation of college English teaching convergence multimedia in the database server interactive network environment is carried out, and the multimedia information fusion of college English teaching convergence in the database server interactive network environment is carried out among domain ontologies. Through the autocorrelation feature matching method, the difference degree ϕ_1 of college English teaching convergence multimedia information fusion in the database server interactive network environment is defined as:

$$\begin{aligned}(\bar{s}, \bar{a}) &= \varphi_1((s_1, a_1), (s_2, a_2), \dots, (s_n, a_n)) \\ &= \Delta\left(\sum_{j=1}^n \omega_j \Delta^{-1}(s_j, a_j)\right)\end{aligned}\quad (3)$$

Wherein, $\sum_{j=1}^n \omega_j = 1, \bar{s} \in S, \bar{a} \in [-0.5, 0.5]D$. Let $\{(s_1, a_1), (s_2, a_2), \dots, (s_n, a_n)\}$ be a set of semantic ontology feature sets that describe the multimedia information of college English teaching in the database server interactive network environment, and get the fuzzy feature set of the terminal cloud service communication platform. According to the above analysis, we use heterogeneous directed graph fusion clustering to design the optimal storage structure of multimedia information of college English teaching in the database server interactive network environment[19], and carry out information fusion and feature screening in heterogeneous storage space.

3. Multimedia Scheduling of College English Teaching Cohesion in Database Interactive Network Environment

3.1. Information feature extraction

This paper constructs a selection model of multimedia information of college English teaching in the database server interactive network environment, and combines the big data fusion method

to carry out multimedia information fusion and feature matching of college English teaching in the database server interactive network environment. The specific process is shown in Figure 5.

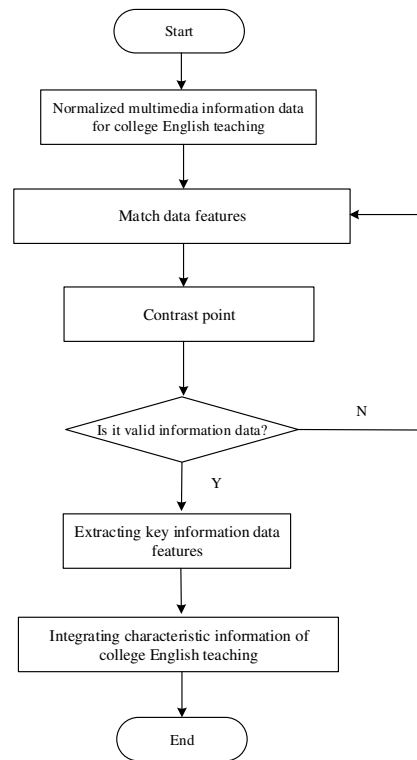


Figure 5 The process of multimedia information fusion and feature matching in college English teaching

The fuzzy feature matching evaluation index set of multimedia information fusion scheduling of college English teaching in the database server interactive network environment is $E_k \in E(k = 1, 2, \dots, t)$, The feature matching model of multimedia information of college English teaching in the database server interactive network environment is established, and the similarity function of X is analyzed. The fuzzy membership function of multimedia information distribution of college English teaching in the database server interactive network environment is obtained as follows:

Wherein, \tilde{x}_k^i is the semantic feature quantity of multimedia information of college English teaching in the database server interactive network environment, and \tilde{x}_k^i is the inertia weight. By using the concept and example joint feature mining, the significance level function of multimedia information fusion nodes of college English teaching in the database server interactive network environment at the moment is obtained as follows:

$$x_i(k+1) = x_i(k) + s \left(\frac{x_j(k) - x_i(k)}{\|x_j(k) - x_i(k)\|} \right) \quad (5)$$

Combined with multi-objective global comprehensive scheduling, the optimal distribution of multimedia information of college English teaching in the database server interactive network environment is realized, the recursive graph model of multimedia information of college English teaching in the database server interactive network environment is reconstructed. The specific process is shown in Figure 6.

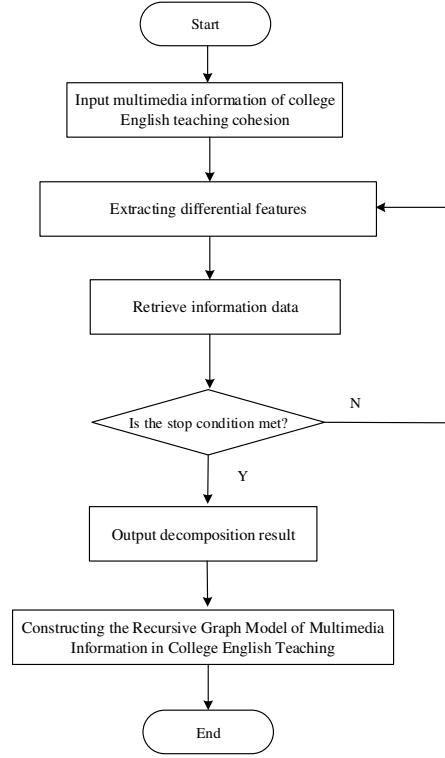


Fig. 6 Construction process of recursive graph model for connecting multimedia information in college English teaching

Multimedia fusion of college English teaching in the database server interactive network environment is realized by the method of phase space reconstruction, and the weight vector v_i is obtained. The block matching function of multimedia information fusion of college English teaching in the database server interactive network environment is as follows:

$$U = \{\mu_{ik} \mid i = 1, 2, \dots, c, k = 1, 2, \dots, n\} \quad (6)$$

Wherein, c is the number of search steps of multimedia information fusion scheduling in college English teaching under the interactive network environment of database server, and μ_{ik} is the decision coefficient of semantic relevance. According to the above analysis, through dynamic optimization control, the feature distribution set of multimedia information interaction information fusion of college English teaching in the database server interactive network environment is obtained, and the clustering center is S_d . The feature vector v_i describing multimedia interaction of college English teaching in the database server interactive network environment is calculated. Based on K-Means multi-source information resource scheduling[20], the feature distribution criterion of multimedia resources of college English teaching in the database server interactive network environment is as follows:

$$S(i,j) = \frac{\sum_{u \in U_{ij}} (V_{u,i} - 3)(V_{u,j} - 3)}{\sqrt{\sum_{u \in U_{ij}} (V_{u,i} - \bar{V}_i)^2} \sqrt{\sum_{u \in U_{ij}} (V_{u,j} - \bar{V}_j)^2}} \quad (7)$$

This paper constructs the characteristic quantity of multimedia information transmission in college English teaching under the interactive network environment of database server, and through deep fusion, obtains that the related information of information fusion scheduling node is $W_c = (\omega_j^{(c)}, 0)$.

Assuming that the data set $X = \{x_1, x_2, \dots, x_n\}$ of the multimedia database of college English teaching in the database server interactive network environment is the number of the target object sets X of the multimedia information fusion scheduling of college English teaching in the database server interactive network environment, the information fusion model of college English teaching in the database server interactive network environment is obtained by the method of node registration:

$$p(e_k | v_k) \sim t_{(\theta_k + d_k)}(\theta_{v,k}, \Sigma_{e|v,k}) \quad (8)$$

According to the above analysis, the linear programming model of multimedia information fusion of college English teaching under the interactive network environment of database server is constructed as follows:

$$\min(f) = \sum_{i=1}^m \sum_{j=1}^n C_{ij} X_{ij} \quad (9)$$

$$\text{s.t.} \begin{cases} \sum_{j=1}^n X_{ij} = a_i, i = 1, 2, \dots, m \\ \sum_{i=1}^m X_{ij} = b_j, j = 1, 2, \dots, n \\ X_{ij} \geq 0, i = 1, 2, \dots, m, j = 1, 2, \dots, n \end{cases} \quad (10)$$

Therefore, the multimedia information fusion and feature extraction of college English teaching convergence under the interactive network environment of database server are obtained.

3.2 Multimedia integration of college English teaching convergence platform under the interactive network environment of database server

The optimal evaluation sets of multimedia information fusion scheduling of college English teaching in the database server interaction network environment are L_1, L_2, \dots, L_n and $P_1^{\min}, P_2, \dots, P_n^{\min}$. Through dynamic optimization control, the optimal clustering model of multimedia information interaction of college English teaching in the database server interaction network environment is obtained as follows:

$$l_{d_{ij} \rightarrow c_x} = \left(\frac{\sum_{v=0}^{|c_x|} \cos_{ij \rightarrow x}(d_{ij}, d_{xv})}{|c_x|} \right)^{-1} \quad (11)$$

Wherein, $\cos_{ij \rightarrow x}(d_{ij}, d_{xv})$ is the fusion clustering feature set of college English teaching convergence multimedia in the database server interactive network environment, and the resource migration feature components of college English teaching convergence information in the database server interactive network environment are as follows:

$$m_k = \Phi^k(\omega) \Big|_{\omega=0} = E[x^k] = \int_{-\infty}^{+\infty} x^k f(x) dx \quad (12)$$

Obviously, $m_1 = E(x) = \eta$ adopts a hierarchical and modular architecture to design a multimedia platform for college English teaching in the interactive network environment of database and server, and gets an optimized fusion model:

$$m_k = E[x^k] = \begin{cases} 0 \\ 1 \cdot 3 \cdots (k-1)\sigma^2 \end{cases} \quad (13)$$

Based on repeated iterations and updates, the distribution characteristics of multimedia information in college English teaching under the interactive network environment of database server are as follows:

$$G(U|\mu_k, \sum_k) = (2\pi)^{-d/2} |\sum_k|^{-1/2} \times \exp\left[-\frac{1}{2}(U - u_k)^T \sum_k^{-1} (U - u_k)\right] \quad (14)$$

Wherein, $G(U|\mu_k, \sum_k)$ represents the multimedia distribution weight of college English teaching convergence under the interactive network environment of database server, U represents the spatial equilibrium feature quantity, u_k represents the distribution feature sequence of multi-terminal cloud services of network multimedia English teaching[21]. To sum up, the design of college English teaching interface platform under the interactive network environment of database server is realized.

4. Simulation analysis

Through the simulation experiment, the application performance of the college English teaching interface platform designed in this paper is tested, and the data is processed and analyzed by Matlab. The hierarchical grid size is 300*300, the length of multimedia information sampling in college English teaching interface under the database server interactive network environment is 2000, the training set is 120, the iteration duration is 12ms, SD, and the maximum number of cycles is 500. According to the above parameters, the college English teaching under the database server interactive network environment is obtained.

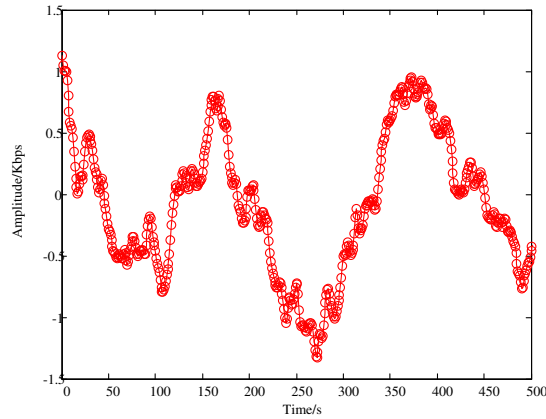
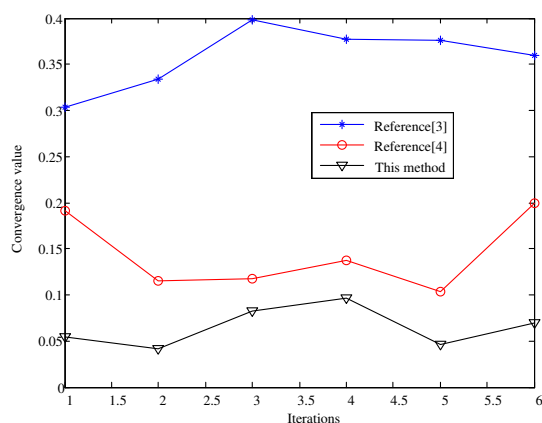
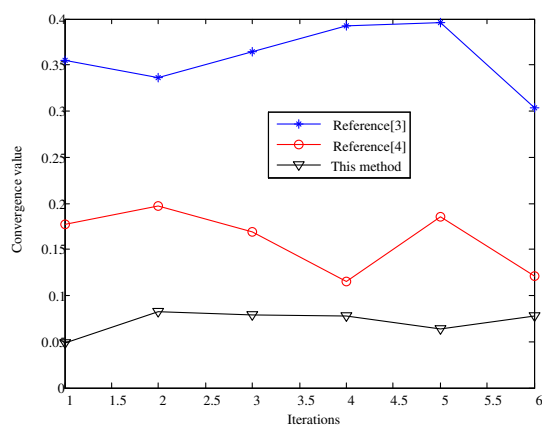


Fig. 7 Resource transmission sequence of college English teaching convergence platform under the interactive network environment of database server

According to the analysis of Figure 7, the average running time of college English teaching convergence platform under the interactive network environment of database server is short, which improves the running efficiency. The objective optimization function value of multimedia convergence is tested, as shown in Figure 8.



(a) Different convergence accuracy of



(b) Different iteration times

Fig. 8 Optimization results of cohesion model of college English teaching

From the analysis of Figure 4, it can be seen that the target optimization performance of the designed college English teaching convergence platform is better under the interactive network environment of database servers, and the information fusion degree of the college English teaching convergence platform under the interactive network environment of database servers is higher, and the resource allocation ability is stronger.

5. Conclusions

In this paper, a multimedia optimization retrieval model for college English teaching under the interactive network environment of cloud computing database server is established to improve the ability of college English teaching integration and information management under the interactive network environment of cloud computing database server. In this paper, a multimedia fusion based cloud computing database server interactive network environment college English teaching connection platform is proposed. The storage structure of college English teaching multimedia information in the interactive network environment of cloud computing database server is designed by using heterogeneous correlation feature detection method. By using the method of multimedia information fusion for college English teaching in the interactive network environment of cloud computing database server, the differential scheduling is carried out, and a

feature matching model for college English teaching multimedia information in the interactive network environment of cloud computing database server is established. Through dynamic optimization control, the feature distribution set of multimedia information interactive information fusion for college English teaching fusion in the interactive network environment of cloud computing database server is obtained, and the optimization design of college English teaching integration platform in the interactive network environment of cloud computing database server is realized. The research shows that under the interactive network environment of cloud computing database server, the multimedia fusion performance of college English teaching is better.

Declarations

Ethical Approval

Not applicable

Competing interests

No, I declare that the authors have no competing interests as defined by Springer, or other interests that might be perceived to influence the results and/or discussion reported in this paper.

Authors' contributions

All authors have the equal contribution.

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Availability of data and materials

The data used to support the findings of this study are available from the corresponding author upon request.

References

- [1]Nawaz Raheel. Leveraging AI and Machine Learning for National Student Survey: Actionable Insights from Textual Feedback to Enhance Quality of Teaching and Learning in UK' s Higher Education[J]. Applied Sciences, 2022, 12(1): 514-514.
- [2]Li P, Xiong J. Research on English Teaching Process Supported by Network Multimedia Technology in Higher Vocational Colleges[J]. Journal of Physics: Conference Series, 2021, 1915(4):042052.
- [3]Sourav A I, Lynn N D, Suyoto S . Teaching English tenses in an informal cooperative study group using smart multimedia and gamification[J]. IOP Conference Series: Materials Science and Engineering, 2021, 1098(3):032035.
- [4]Lin Y. The Application of Multimedia Technology and Situational Teaching Method in English Classroom of Grade 6 in Primary Schools-Taking the Teaching Design of Unit 1, Volume 2 of Grade 6 in Oxford Shanghai Edition as an Example[J]. Open Access Library Journal, 2022, 9(2):1-12.
- [5]Gomes V V, Cavaco S C F, Morgado C P, et al. An Arduino-Based Talking Calorimeter for Inclusive Lab Activities[J]. Journal of Chemical Education, 2020, 97(6):1677-1681.
- [6]Sudarwati N, Rukminingsih, Prianto A. The use of multimedia in teaching entrepreneurship for university students: The case of economic education students[J]. Journal of Physics Conference Series, 2020, 1511(1):012014.
- [7]Nada H. The Role of Multimedia in Developing Middle School Students' Reading Comprehension and Creative Thinking Skills: Using Multimedia in Teaching EFL Students[J]. International Journal of Online Pedagogy and Course Design (IJOPCD), 2021, 11(4):20-32.
- [8]Zeng H B. Advantages of Using Computer Multimedia to Assist Public English Teaching in

- Higher Vocational Colleges[J]. Journal of Physics: Conference Series, 2021, 1992(4):042013 .
- [9]Gomez J T, Rodriguez-Hidalgo A , Naranjo Y , et al. Teaching Differently: The Digital Signal Processing of Multimedia Content Through the Use of Liberal Arts[J]. IEEE Signal Processing Magazine, 2021, 38(3):94-104.
- [10]Leary A, Cook R, Jones S, et al. Using knowledge discovery through data mining to gain intelligence from routinely collected incident reporting in an acute English hospital[J]. International Journal of Health Care Quality Assurance, 2020, 33(2):221-234.
- [11]Gryshchenko I M , Jin L , Derkach T M , et al. Experience in teaching analytical chemistry in a joint English-language educational project of Chinese and Ukrainian universities[J]. Journal of Physics: Conference Series, 2021, 1946(1):012008 .
- [12]Badacho E B. A Solution for Privacy-Preserving and Security in Cloud for Document Oriented Data (By Using NoSQL Database)[J]. Computer Engineering and Intelligent Systems, 2020, 11(3):7-22.
- [13]Asl R M, Palm R, Wu H , et al. Fuzzy-based parameter optimization of adaptive unscented Kalman filter: Methodology and experimental validation[J]. IEEE Access, 2020, 8(1):54887-54904.
- [14]Choi H, Lee S, Jeong D. Forensic Recovery of SQL Server Database: Practical Approach[J]. IEEE Access, 2021, 9(1):14564-14575.
- [15]Calatroni L, Lanza A, Pragliola M, et al. Adaptive parameter selection for weighted-TV image reconstruction problems[J]. Journal of Physics: Conference Series, 2020, 1476(1):012003.
- [16]Deldari S, Smith D V, Sadri A, et al. ESPRESSO: Entropy and ShaPe aware time-Series SegmentatiOn for Processing Heterogeneous Sensor Data[J]. Proceedings of the ACM on Interactive Mobile Wearable and Ubiquitous Technologies, 2020, 4(3):1-24.
- [17]Herremans D . AttendAffectNet - Emotion Prediction of Movie Viewers Using Multimodal Fusion with Self-Attention[J]. Sensors, 2021, 21(24):8356.
- [18]Yang Z, Yang L, Raymond O I, et al. NSDH: A Nonlinear Supervised Discrete Hashing framework for large-scale cross-modal retrieval[J]. Knowledge-Based Systems, 2021, 217(3):106818.
- [19]Shen H T, Zhu X , Zhang Z , et al. Heterogeneous data fusion for predicting mild cognitive impairment conversion[J]. Information Fusion, 2021, 66(1):54-63.
- [20]Wang Z , Yang C, Oh S K , et al. Robust Multi-Linear Fuzzy SVR Designed With the Aid of Fuzzy C-Means Clustering Based on Insensitive Data Information[J]. IEEE Access, 2020, 8(1):184997-185011.
- [21]Ramasubbareddy S, Swetha E, Luhach A K , et al. A Multi-Objective Genetic Algorithm-Based Resource Scheduling in Mobile Cloud Computing[J]. International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), 2021, 15(3):58-73.